UTAH DEPARTMENT OF TRANSPORTATION

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Tack/Prime Coats

Prime coats are a cutback asphalt applied to a prepared sub-grade or untreated base course. Prime coats provide a membrane of bitumen to seal road bases, sub-bases and sub-grades and prevent entrance of water or water loss by evaporation. Prime coats help to maintain the balance of moisture and reduce the loss of fines from the surface by heavy rainfall and also help provide good bonding of a bituminous overlay.

Tack Coats are an emulsified asphalt applied to the existing surface or new pavement surface and intermediate lifts. Tack coats are an application of liquid asphalt material to ensure a bond between the surface being paved and the next course.

PROPER APPLICATION

Apply prime coats to a compacted surface free from ruts, corrugations and all other irregularities. For tack coats, clean the surface of all material that prevent the tack coat from bonding to the surface such as mud, dirt and leaves. Cover all tacked surfaces with surfacing materials the same day the tack coat is applied. For prime and tack coats, protect all structures such as guardrails and guideposts from spattering and use a pressure distributor to apply the asphalt in a uniform and continuous spread. Higher application rates may be necessary on milled surfaces. Apply as much tack as possible without leaving significant puddling on the road surface. Strive for 90% surface coverage.

Do not apply to wet surfaces, or when the surface temperature is below 50 EF. Do not apply tack or prime coats when weather conditions will prevent proper adherence.

SPECIFICATIONS/DETAILS

- For prime coats, MC 70 (medium curing) and MC 250 are typical.
- The most common emulsion types for tack coats are diluted CSS-1h (cationic, slow-setting, hard base asphalt), CSS-1, SS-1, and SS-1h. Diluted coats allow a higher application rate and require a longer cure time.
- Keep viscosity between 50 and 100 centistokes. (AASHTO T 201)
- For prime coats use blotter material following AASHTO T 27 if prime coat fails to penetrate.
- See UDOT Standard Specification Section 02748 PRIME COAT/TACK COAT

COST INFORMATION

A 1-1 diluted CSS solution unit cost is approximately $100/ton.
MC type asphalts are approximately $235/ton.
Costs for these asphalts are not fixed and should be referred to as an approximation only.

FURTHER INFORMATION

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